neighboring base station transceivers have been received, wherein the ambiguous neighboring base station transceivers include the at least two neighboring base station transceivers.

4. (Original) The method of claim 1 wherein the detecting step is performed by a first base station controller in communication with the primary base station transceiver.

5. (Original) The method of claim 4 wherein the handoff is between the primary base station transceiver and a neighboring base station transceiver controlled by a second base station controller.

6. (Original) The method of claim 1 wherein the handoff is a soft handoff.

7. (Original) The method of claim 6 wherein the handoff processing follows CDMA protocols.

8. (Currently amended) A method for performing a handoff in a wireless communication system having at least one base station controller, at least one primary base station transceiver in communication with a mobile unit, and a plurality of neighboring base station transceivers, the method comprising:

(a) receiving at least one communications message from the mobile unit, wherein the communications message includes a phase offset from at least one pilot signal from a first one of the plurality of neighboring base station transceivers to the mobile unit;

(b) beginning handoff processing for the mobile unit with a second one of the plurality of neighboring base station transceivers;

(c) detecting an ambiguity wherein the ambiguity consists essentially of the condition under which ~~by determining that~~ the phase offset is within a search window for both the first and second neighboring base station transceivers;

(d) resolving the ambiguity for subsequent handoff processing; and

(e) completing the handoff processing.

1-3-04